

## **ABSTRACT OF THE DISCLOSURE**

[000326] An image processing apparatus acquires three-dimensional volume data from a modality, and a start point, end point, etc. of an extraction target vessel. The image processing apparatus specifies cross sectional regions of the vessel 5 sequentially from the designated start point. The image processing apparatus sequentially obtains the area of images appearing in each specified cross sectional region in accordance with changes in threshold. The image processing apparatus clarifies the cross section of the vessel in each region based on rate of change in the obtained area. The image processing apparatus obtains a center position of the 10 clarified cross section of the vessel, and obtains a three-dimensional path representing a center line of the vessel in its longitudinal direction. The image processing apparatus generates plural kinds of images representing the vessel based on the obtained three-dimensional path, and displays them together on a display device.